



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,431	07/14/2006	Lesley Ray Jenkins	hhtech 7	4848
40198	7590	12/22/2009	EXAMINER	
BUSH INTELLECTUAL PROPERTY LAW			TOWNS, BRITTANY E	
c/o CPA Global			ART UNIT	PAPER NUMBER
P.O. Box 52050			3749	
Minneapolis, MN 55402				
MAIL DATE		DELIVERY MODE		
12/22/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,431	JENKINS ET AL.	
	Examiner	Art Unit	
	BRITTANY TOWNS	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 May 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-23 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 24 June 2008 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05/07/2009</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5, 12-13, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmitt (U.S. Patent No. 6,005,770).

Regarding Claim 1, Schmitt teaches a fan shutter, comprising: a housing having one end attachable to a fan (e.g. a housing extends around a fan where the end

attached to the fan is open ended to allow for a flow of air, Schmitt: col. 3, lines 6-13; Figure 2); said housing having an opposite end with one or more doors attached pivotably and centrally to said opposite end of said housing (e.g. louvers are positioned on the opposite end of the fan of the housing. The louvers are attached to the housing by shafts which allow pivotal movement of the louvers, Schmitt: col. 3, lines 6-46; Figure 2); and said one or more doors biased to close said opposite end of said housing (e.g. the louvers remain in the closed positioned until the louvers are triggered by the operation of the fan to move the louvers in the open position, Schmitt: col. 3, line 61-col. 4, line 8).

Regarding Claim 2, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing where one or more doors are attached to a center post by hinges at said opposite end of said housing (e.g. the middle louver is pivotably attached to the housing through the corresponding middle shaft, Schmitt: col. 3, lines 6-46; Figure 2).

Regarding Claim 5, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing where one or more doors are biased to close by the use of one or more counterweights (e.g. each louvers has a corresponding counterweights at each end of the shaft. The counterweights create a rotational

gravitational force causing the louvers to remain in a closed position when the fan is not operating, Schmitt: col. 3, line 47-col. 4, line 14).

Regarding Claim 12, Schmitt teaches a fan shutter, comprising: a housing having one end attachable to a fan and an opposite end having one or more doors attached pivotably to a centerpost (e.g. e.g. a housing extends around a fan where the end attached to the fan is open ended to allow for a flow of air, Schmitt: col. 3, lines 6-46; Figure 2); and said one or more doors being vertically oriented, biased to close said opposite end of said housing when said fan is not operating, and opening said opposite end of said housing when said fan is operating (e.g. louvers are positioned on the opposite end of the fan of the housing. The louvers are attached to the housing by shafts which allow pivotal movement of the louvers. The louvers remain in the closed position when the fan is not operating and move to an open position when the fan is in operating mode, Schmitt: col. 3, line 61-col. 4, line 47).

Regarding Claim 13, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing where one or more doors are attached to said center post by hinges (e.g. the middle louver is pivotably attached to the housing through the corresponding middle shaft, Schmitt: col. 3, lines 6-46; Figure 2).

Regarding Claim 16, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing with the doors in the closed

positioned when the fan is not operating and the doors are in the open position when the fan is operating where one or more doors are biased to close by the use of one or more counterweights (e.g. each louvers has a corresponding counterweights at each end of the shaft. The counterweights create a rotational gravitational force causing the louvers to remain in a closed position when the fan is not operating, Schmitt: col. 3, line 47-col. 4, line 14).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (U.S. Patent No. 6,005,770) in view of Bacant (U.S. Patent No. 4,167,898).

Regarding Claim 3, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing where one or more doors are biased to close by gravity. However, Schmitt does not teach one or more doors are biased to close by gravity by the end of the housing being tilted from vertical. It is noted that the claim language of having the opposite end of the housing with the doors being

tilted from a vertical position where the doors are biased to fully closed in that position by gravity seems unreasonable. If the doors are tilting in a vertical position, the doors would never fully close with the use of gravity. It is noted that Barcant does teach one or more doors are biased to partially close by gravity by the end of the housing being tilted from vertical (e.g. blades are positioned on the a frame, the blades are able to pivot and move to a open position by the use of a fan in the building to a gravity controlled vertical position, Barcant: col. 3, line 29- col. 4, line 9). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with pivotably attached doors taught by Schmitt with a housing with one end tilted of a ventilation system with pivotably attached louvers taught by Bacant to have the doors to be able to partially close by the force of gravity.

Regarding Claim 14, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing with the doors in the closed positioned when the fan is not operating and the doors are in the open position when the fan is operating where one or more doors are biased to close by gravity. However, Schmitt does not teach one or more doors are biased to close by gravity by the end of the housing being tilted from vertical. It is noted that Barcant does teach one or more doors are biased to close by gravity by the end of the housing being tilted from

vertical (e.g. blades are positioned on the a frame, the blades are able to pivot and move to a open position by the use of a fan in the building to a gravity controlled vertical position, Barcant: col. 3, line 29- col. 4, line 9). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with pivotably attached doors varying from a close and open position depending on the operation of the fan with a housing with one end tilted of a ventilation system with pivotably attached louvers taught by Bacant to have the doors to be able to partially close by the force of gravity.

5. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (U.S. Patent No. 6,005,770) in view of Greenslade et al (U.S. Patent No. 7,238,104).

Regarding Claim 4, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing one or more doors are biased to close by gravity by said housing. However, Schmitt does not teach one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of said housing remains vertical. It is noted that Greenslade et al does teach one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of said housing remains vertical (e.g. a vent is tilted creating a vent face which is flushed with a wall where covering the vent face is slat structures which are in a first position or closed position because no air is applied to the slat to

force them to open, Greenslade et al: col. 3, line 36-col. 4, line 25; Figures 2 and 3).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with pivotably attached doors varying from a close and open position depending on the operation of the fan taught by Schmitt with a housing with one end tilted of a ventilation system with pivotably attached louvers taught by Greenslade et al to have the doors to be able to close by the force of gravity.

Regarding Claim 15, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing with the doors in the closed positioned when the fan is not operating and the doors are in the open position when the fan is operating where one or more doors are biased to close by gravity. However, Schmitt does not teach one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of said housing remains vertical. It is noted that Greenslade et al does teach one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of said housing remains vertical (e.g. a vent is tilted creating a vent face which is flushed with a wall where covering the vent face is slat structures which are in a first position or closed position because no air is applied to the slat to force them to open, Greenslade et al: col. 3, line 36-col. 4, line 25; Figures 2 and 3). Hence, it would have

been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with pivotably attached doors varying from a close and open position depending on the operation of the fan taught by Schmitt with a housing with one end tilted of a ventilation system with pivotably attached louvers taught by Greenslade et al to have the doors to be able to close by the force of gravity.

6. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (U.S. Patent No. 6,005,770) in view of Schaefer (U.S. Patent No. 5,236,391).

Regarding Claim 6, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing where one or more doors have hinges. However, Schmitt does not teach one or more doors biased to close by the use of springs in the hinges. It is noted that Schaefer does teach one or more doors have hinges and are biased to close by the use of springs in said hinges (e.g. tension springs arranged on the brackets located on the baffles of the air intake structure, Schaefer: col. 4, line 55-col. 5, line 24; Figures 4 and 7). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors taught by Schmitt with spring actuated doors of a ventilation system taught by Schaefer to have the doors easily move to a closed position once the fan is not operating due to the tension in the springs.

Regarding Claim 17, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door in the closed position when the fan is not operating and the doors are in the open position when the fan is operating where one or more doors have hinges. However, Schmitt does not teach one or one doors biased to close by the use of springs in the hinges. It is noted that Schaefer does teach one or more doors have hinges and are biased to close by the use of springs in said hinges (e.g. tension springs arranged on the brackets located on the baffles of the air intake structure, Schaefer: col. 4, line 55-col. 5, line 24; Figures 4 and 7). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors taught by Schmitt with spring actuated doors of a ventilation system taught by Schaefer to have the doors easily move to a closed position once the fan is not operating due to the tension in the springs.

7. Claims 7-11 and 18, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (U.S. Patent No. 6,005,770) in view of Davis et al (U.S. Patent No. 6,616,404).

Regarding Claim 7, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing. However, Schmitt does not teach a housing is tubular. It is noted that Davis et al does teach a housing that is tubular (e.g.

a housing has a square inlet at the base of the housing and then transitions into a circular housing, Davis et al: col. 4, line 40-col. 5, line 29; Figure 1). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors taught by Schmitt with a housing of a ventilation fan with a fan and pivotably attached louvers taught by Davis et al to create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

Regarding Claim 8, Schmitt in view of Davis et al teaches a fan shutter comprising a tubular housing with a fan and pivotably attached door to the housing where the opposite end of said housing has a bell mouth (e.g. as the housing gradually extends out from the square base, the housing begins to form a shape of a bell, Davis et al: col. 4, line 40-col. 5, line 28; Figure 2). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors taught by Schmitt with a housing of a ventilation fan with a fan and pivotably attached louvers taught by Davis et al to create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

Regarding Claim 9, Schmitt in view of Davis et al teaches a fan shutter comprising a tubular housing with a fan and pivotably attached door to the housing where the housing and said fan form a single unit (e.g. a fan and the circular housing form one unit, Davis et al: col. 4, line 40-col. 5, line 28; Figure 2). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors taught by Schmitt with a housing of a ventilation fan with a fan and pivotably attached louvers taught by Davis et al to create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

Regarding Claim 10, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing. However, Schmitt does not teach an opposite end of housing having a bell mouth. It is noted that Davis et al does teach an opposite end of a housing having a bell mouth (e.g. as the housing gradually extends out from the square base, the housing begins to form a shape of a bell, Davis et al: col. 4, line 40-col. 5, line 28; Figure 2). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors taught by Schmitt with a housing of a ventilation fan with a fan and pivotably attached louvers taught by Davis et al to

create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

Regarding Claim 11, Schmitt teaches a fan shutter comprising a housing with a fan and pivotably attached door to the housing. However, Schmitt does not teach a housing and a fan forming a single unit. It is noted that Davis et al does teach a housing and said fan form a single unit (e.g. a fan and the circular housing form one unit, Davis et al: col. 4, line 40-col. 5, line 28; Figure 2). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors taught by Schmitt with a housing of a ventilation fan with a fan and pivotably attached louvers taught by Davis et al to create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

Regarding Claim 18, Schmitt teaches a fan shutter, comprising: a housing having one end attachable to a fan and an opposite end with one or more doors attached pivotably and centrally to the opposite end (e.g. e.g. a housing extends around a fan where the end attached to the fan is open ended to allow for a flow of air. Louvers are positioned on the opposite end of the fan of the housing. The louvers are attached to the housing by shafts which allow pivotal movement of the louvers,

Schmitt: col. 3, lines 6-46; Figure 2); the one or more doors being vertically oriented, biased to close said opposite end of said housing when said fan is not operating, and opening said opposite end of said housing when said fan is operating (e.g. louvers are positioned on the opposite end of the fan of the housing. The louvers are attached to the housing by shafts which allow pivotal movement of the louvers. The louvers remain in the closed position when the fan is not operating and move to an open position when the fan is in operating mode, Schmitt: col. 3, line 61-col. 4, line 47). However, Schmitt does not teach a tubular housing with an opposite end having a bellmouth. It is noted that Davis et al does teach a tubular housing with an opposite end having a bellmouth (e.g. a housing has a square inlet at the base of the housing and then transitions into a circular housing and as the housing gradually extends out from the square base, the housing begins to form a shape of a bell, Davis et al: col. ; Figure 2). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors with a tubular housing of a ventilation fan with a fan and pivotably attached louvers to create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

Regarding Claim 21, Schmitt in view of Davis et al teaches a fan shutter comprising a tubular housing with a fan and pivotably attached door to the housing with the doors in the closed positioned when the fan is not operating and the doors are in the open position when the fan is operating where the opposite end of said housing has a bell mouth where one or more doors are biased to close by the use of one or more counterweights (e.g. the middle louver is pivotably attached to the housing through the corresponding middle shaft, Schmitt: col. 3, lines 6-46; Figure 2). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors with a tubular housing of a ventilation fan with a fan and pivotably attached louvers to create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

Regarding Claim 23, Schmitt in view of Davis et al teaches a fan shutter comprising a tubular housing with a fan and pivotably attached door to the housing with the doors in the closed positioned when the fan is not operating and the doors are in the open position when the fan is operating where the opposite end of said housing has a bell mouth where the housing and said fan form a single unit (e.g. a fan and the circular housing form one unit, Davis et al: col. 4, line 40-col. 5, line 28; Figure 2). Hence, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors with a tubular housing of a ventilation fan with a fan and pivotably attached louvers to create a more laminar flow of air produced by the fan when the fan is attached to a tubular housing which also reduces the amount of noise generated.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (U.S. Patent No. 6,005,770) in view of Davis et al (U.S. Patent No. 6,616,404) in view of Bacant (U.S. Patent No. 4,167,898).

Regarding Claim 19, Schmitt in view of Davis et al teaches a fan shutter comprising a tubular housing with a fan and pivotably attached door to the housing with the doors in the closed position when the fan is not operating and the doors are in the open position when the fan is operating where the opposite end of said housing has a bell mouth. However, Schmitt in view of Davis et al does not teach one or more doors are biased to close by gravity by the end of the housing being tilted from vertical. It is noted that the claim language of having the opposite end of the housing with the doors being tilted from a vertical position where the doors are biased to fully closed in that position by gravity seems unreasonable. If the doors are tilting in a vertical position, the doors would never fully close with the use of gravity. It is noted that Barcant does teach one or more doors are biased to partially close by

gravity by the end of the housing being tilted from vertical (e.g. blades are positioned on the a frame, the blades are able to pivot and move to a open position by the use of a fan in the building to a gravity controlled vertical position, Barcant: col. 3, line 29-col. 4, line 9). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with pivotably attached doors taught by Schmitt with a housing with one end tilted of a ventilation system with pivotably attached louvers taught by Bacant to have the doors to be able to partially close by the force of gravity.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (U.S. Patent No. 6,005,770) in view of Davis et al (U.S. Patent No. 6,616,404) in view of Greensdale et al (U.S. Patent No. 7,238,104).

Regarding Claim 20, Schmitt in view of Davis et al teaches a fan shutter comprising a tubular housing with a fan and pivotably attached door to the housing with the doors in the closed positioned when the fan is not operating and the doors are in the open position when the fan is operating where the opposite end of said housing has a bell mouth. However, Schmitt in view of Davis et al does not teach one or more doors are biased to close by gravity by said housing being tilted downward while said opposite end of said housing remains vertical. It is noted that Greenslade et al does teach one or more doors are biased to close by gravity by said housing being

tilted downward while said opposite end of said housing remains vertical (e.g. a vent is tilted creating a vent face which is flushed with a wall where covering the vent face is slat structures which are in a first position or closed position because no air is applied to the slat to force them to open, Greenslade et al: col. 3, line 36-col. 4, line 25; Figures 2 and 3). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with pivotably attached doors varying from a close and open position depending on the operation of the fan with a housing with one end tilted of a ventilation system with pivotably attached louvers to have the doors to be able to close by the force of gravity.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (U.S. Patent No. 6,005,770) in view of Davis et al (U.S. Patent No.) in view of Schaefer (U.S. Patent No. 5,236,391).

Regarding Claim 22, Schmitt in view of Davis et al teaches a fan shutter comprising a tubular housing with a fan and pivotably attached door to the housing with the doors in the closed positioned when the fan is not operating and the doors are in the open position when the fan is operating where the opposite end of said housing has a bell mouth. However, Schmitt in view of Davis et al does not teach one or more doors biased to close by the use of springs in hinges. It is noted that Schaefer does teach one or more doors have hinges and are biased to close by the use of springs

in said hinges (e.g. tension springs arranged on the brackets located on the baffles of the air intake structure, Schaefer: col. 4, line 55-col. 5, line 24; Figures 4 and 7). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a housing of a fan shutter with a fan and pivotable attached doors with a tubular housing of a ventilation fan with a fan and pivotably attached louvers taught by Schmitt in view of Davis et al with spring actuated doors of a ventilation system taught by Schaefer to have the doors easily move to a closed position once the fan is not operating due to the tension in the springs.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRITTANY TOWNS whose telephone number is (571)270-1181. The examiner can normally be reached on Monday-Friday 7:30-5:00, 1st Friday in biweek off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. T./
Examiner, Art Unit 3749

/Steven B. McAllister/
Supervisory Patent Examiner, Art Unit 3749